

CLAIMS

1. A process for preparing a 4-aminotetrahydropyran compound represented by the formula (1):



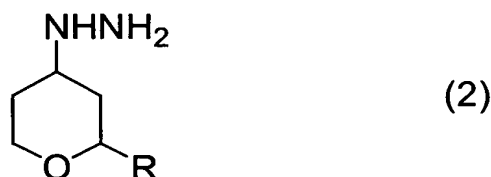
5

wherein R represents a hydrogen atom or a hydrocarbon group,

or an acid salt thereof,

which comprises subjecting a 4-hydrazinotetrahydropyran

10 compound represented by the formula (2):



wherein R has the same meaning as defined above,
or an acid salt thereof

15 to decomposition reaction in the presence of at least one
compound selected from Raney nickel, a noble metal catalyst
and a metal oxide.

2. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 1,
wherein the noble metal catalyst is a catalyst containing
20 at least one of palladium and platinum.

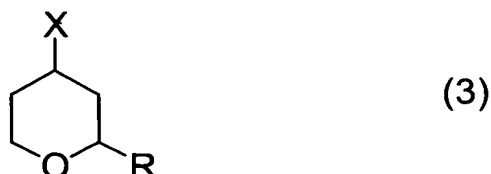
3. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 1,
wherein the metal oxide is copper (I) oxide or copper (II)
oxide.

25 4. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 1,
wherein the reaction is carried out in a solvent.

5. The process for preparing a 4-aminotetrahydropyran
compound or an acid salt thereof according to Claim 4,
30 wherein the solvent is water, an alcohol, or a mixed

solvent thereof.

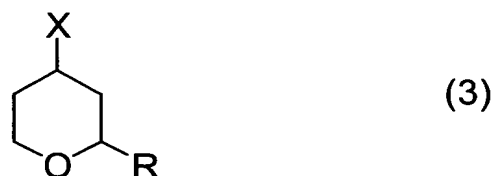
6. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 1, wherein the compound represented by the formula (2) is a compound obtained by reacting a 4-substituted-tetrahydropyran compound represented by the formula (3):



wherein R has the same meaning as defined above, and X represents a leaving group,

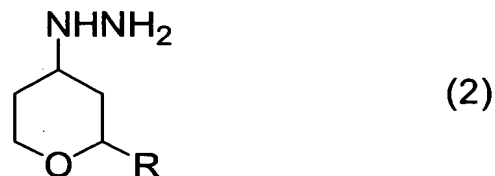
- 10 with a hydrazine.

7. A process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof, which comprises (A) the first step of reacting a 4-substituted-tetrahydropyran compound represented by the formula (3):



15

wherein R represents a hydrogen atom or a hydrocarbon group, and X represents a leaving group, with a hydrazine to prepare a 4-hydrazinotetrahydropyran compound represented by the formula (2):



20

wherein R has the same meaning as defined above, or an acid salt thereof,

- (B) then, the second step of decomposing the 4-hydrazino-tetrahydropyran compound or an acid salt thereof in the reaction mixture in the presence of at least one compound selected from Raney nickel, a noble metal catalyst and a metal oxide to prepare a 4-aminotetrahydropyran compound
- 25

represented by the formula (1):



wherein R has the same meaning as defined above.

8. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 7, wherein the first step is carried out in a solvent.

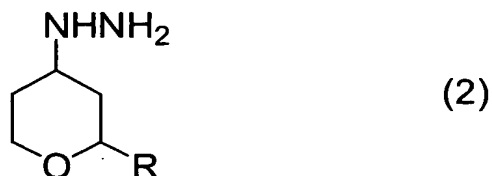
9. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 7, wherein the solvent used in the first step is an alcohol derivative.

10. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 7, wherein the second step is carried out in a solvent.

11. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 10, wherein the solvent used in the second step is water, an alcohol or a mixture thereof.

12. The process for preparing a 4-aminotetrahydropyran compound or an acid salt thereof according to Claim 7, wherein an amine is used at the time of removing the Raney nickel from the reaction mixture after completion of the reaction at the second step.

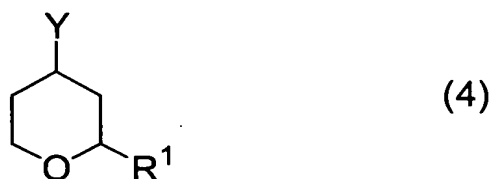
13. A 2-substituted-4-hydrazinotetrahydropyran compound represented by the formula (2):



wherein R represents a hydrogen atom or a hydrocarbon group,

or an acid salt thereof.

14. A 2-substituted tetrahydropyranyl-4-sulfonate represented by the formula (4):



wherein R^1 represents a hydrocarbon group, and Y represents an organic sulfonyloxy group.

15. A process for preparing the 2-substituted tetrahydro-
 5 pyran-4-sulfonate which comprises reacting 3-buten-1-ol with an aldehyde compound represented by the formula (5):



wherein R^1 has the same meaning as defined above, a polymer thereof or an acetal compound thereof, and an
 10 organic sulfonic acid.

16. The process for preparing the 2-substituted tetrahydro-
 pyran-4-sulfonate according to Claim 15, wherein the
 reaction is carried out in an organic solvent.